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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/759,285	01/20/2004	Minoru Kishigami	Q79305	6872

23373 7590 10/05/2004

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EXAMINER	
GLEITZ, RYAN M	

ART UNIT	PAPER NUMBER
2852	

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/759,285	KISHIGAMI ET AL.	
	Examiner	Art Unit	
	Ryan Gleitz	2852	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 January 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2 and 4-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2 and 4-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *1/20/04* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *1/20/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This is a continuation of applicant's earlier Application No. 10/189,370. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 6 is rejected under 35 U.S.C. 102(b) as being anticipated by Takenaga et al. (USPN 4,030,445).

Takenaga et al. disclose a rotary developing apparatus having a plurality of developing devices (14, 15, 16; Fig. 3; col. 2, ln. 21-22) mounted along an outer periphery of a cylindrical

rotary unit (Fig. 3), the rotary developing apparatus comprising an input gear (22; col. 3, ln. 5), which reads on a first gear, that at least indirectly connects the rotary unit to a motor (28; Fig. 1), which reads on a drive source, to rotate the rotary unit (Col. 3, ln. 19-28); a developing device (14, 15, 16) that is revolved and stopped at a predetermined position (Col. 3, ln. 57-60) as a result of the rotary unit being rotated by the drive source (28); and a gear (21; col. 4, ln. 3-17), which reads on a second gear, that at least indirectly connects the developing device (14, 15, 16) revolved and stopped at a developing position (Col. 3, ln. 57-60) to the drive source (28; fig. 2; col. 4, ln. 3-7) to drive the developing device (14, 15, 16).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 2, 4, 5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takenaga et al. (USPN 4,030,445) in view of Hattori et al. (USPN 5,585,911).

Takenaga et al. disclose a rotary developing apparatus having a plurality of developing devices (14, 15, 16; Fig. 3; col. 2, ln. 21-22) mounted along an outer periphery of a cylindrical rotary unit (Fig. 3), the rotary developing apparatus comprising an input gear (22; col. 3, ln. 5) driven through a gearing (Col. 3, ln. 27-28), which reads on an a first gear train, for connecting the rotary unit to a motor (28; Fig. 1), which reads on a drive source, to rotate the rotary unit (Col. 3, ln. 19-28); a gear (21; col. 4, ln. 3-17) and gears (14m, 15m, 16m), which read on a second gear train, for connecting a developing device (14, 15, 16) revolved and stopped at a developing position (Col. 3, ln. 57-60), as a result of the rotary unit being rotationally driven, to the drive source (28) to drive the developing device (14, 15, 16); a driven-side clutch disk (26), which reads on a drive switching means, for bringing the first gear train (22) in and out of driving engagement with the drive source (28).

Regarding claim 2, the first gear train connects the drive source (28) to a drive-side clutch disk (23), which reads on an input gear of the rotary unit through a gearing (Col. 3, ln. 27-29), which reads on a rotary drive gear, and the second gear train (21, 14m, 15m, 16m) connects the drive source (28) to an input gear (14m, 15m, 16m) of the development device through a development drive gear (21; Fig. 3).

Regarding claim 4, wherein the drive switching means (26) include a rotary unit clutch (26) for connecting the drive source (28) to the input gear (23) of the rotary unit.

Regarding claim 8, the rotary unit is equipped with the plurality of developing devices (14, 15, 16) is rotated to successively move (Col. 3, ln. 52-60) the developing devices (14, 15, 16) to a developing position to perform a developing operation.

Takenaga et al. do not expressly disclose that the second gear train (developing rollers) are out of engagement with the drive source (28) when the rotary unit is revolved.

However, Hattori et al. disclose a similar rotary developing apparatus having a plurality of developing devices (2a, 2b, 2c, 2d; col. 5, ln. 5-11); wherein a clutch (12; col. 5, ln. 21), which reads on a drive switching means, for bringing the developing units (2a, 2b, 2c ,2d) in and out of engagement (Col. 6, ln. 6-11; Fig. 14) with a drive source. The clutch (12) reads on a development clutch for connecting the main drive (Col. 5, ln. 24), which reads on a drive source, to the input gear of the developing device (2a, 2b, 2c, 2d).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the driving switching means of Takenaga et al. with the clutch taught by Hattori et al.. The suggestion for doing so would have been that it is well known in the art to drive the developing units only when in use to save power and reduce wear in the developing subunit.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takenaga et al. (USPN 4,030,445) in view of Hattori et al. (USPN 5,585,911) as applied to claim 1, 2, 4, 5, and 8 above, and further in view Ohno (USPN 4,743,938).

Takenaga et al. and Hattori et al. do not disclose that the development clutch is a one-way clutch.

However, Ohno disclose a one-way clutch (464; Fig. 11; col. 13, ln. 35) for connecting a drive source (431) to the input gear (221) of a developing device (101).

It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the drive switching means of Takenaga et al. to include a one-way clutch as taught by Ohno. The suggestion for doing so would have been that Ohno teaches that the one-way clutch releases the shock or cramp that may be caused by the engagement of the gears in the gear train (Col. 13, ln. 46-55).

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takenaga et al. (USPN 4,030,445) in view of Hattori et al. (USPN 5,585,911).

Takenaga et al. disclose all of the limitations of claim 6 above, but do not disclose that the drive source alternately drives the first gear and the second gear.

However, Hattori et al. disclose in a timing diagram (Fig. 14) that the drive source alternately drives the first gear (the gear driving the rotary body) and the second gear (the gear driving the developing subunit).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the driving switching means of Takenaga et al. with the driving timing taught by Hattori et al.. The suggestion for doing so would have been that it is well known in the art to drive the developing units only when in use to save power and reduce wear in the developing subunit.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan Gleitz whose telephone number is (571) 272-2134. The examiner can normally be reached on Monday-Friday between 9:00AM and 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley can be reached on (571) 272-2136. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

rg

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